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# MP250 FRESNEL

- ***Code 02E004***

- ***OPERATING INSTRUCTIONS***

Realized by PC CAD & VIDEO

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## 1.0 HOW TO USE THE MANUAL

*This manual has been organized in order support the user, the installer or the maintenance operator of the described unit with those necessary informations for a correct use of the installation and working procedures of the same unit. The various procedures will be just signalled by indicators (when necessary) evidencing the operation dangers and the necessity of technical support. Please find here below a list of symbols and relative meaning.*

***OPERATOR**: Not particulary qualified staff, that can operate when no specific knowledge is required.*

***COEF OPERATOR** Technical staff, qualified and trained by the constructor, for repair and extraordinary operations.*

***MECHANICAL OPERATORS** Staff employed in the ordinary mechanical maintenance.*

***SPECIALIZED MECHANICAL OPERATOR:** Qualified staff employed in extraordinary authorized installations and repairs.*

***ELECTRIC OPERATORS:** Staff employed in the ordinary electric maintenance.*

***SPECIALIZED ELECTRIC OPERATORS**: Qualified staff employed in extraordinary authorized installations and repairs.*

***DANGER SIGNAL** Generic danger signal and electric shock danger signal.*

## 1.1 TECHNICAL NOTES

### *MP250 Fresnel*

*Code: 02E004*

- *MSD 250/2 lamp - 250 W - 2.000 hours life - 8.000 °k*
- *540° PAN - 270° TILT*
- *16 bit movement resolution*
- *PAN and TILT automatic repositioning*
- *80 colors + white + bi-colors*
- *2 Conversion filters 3200° k / 5600° k*
- *Rainbow effect adjustable in speed*
- *Black light filter*
- *Linear dimmer from 0% to 100%*
- *Mechanical shutter*
- *Adjustable strobe*
- *Frost linear effect*
- *Multifunctional display*
- *Remote reset via DMX, selectable from display*
- *Remote ON/OFF lamp via DMX, selectable from display*
- *Software Upgrade via DMX (UNI-PROG 8 optional available)*
- *Internal self-test with led indication*
- *Internal power factor correction - absorbed power 1,8 A.*
- *DMX 512 Standard*
- *8/9 control channels*

## 2.0 INSTALLATION

***The constructor is not to be considered responsible in the case of:***

- *improper use of the unit or use by not trained staff*
- *use in contrast with the directions on work safety*
- *wrong installation*
- *defective power supply*
- *serious lacks in the necessary maintenance*
- *unauthorized modifications and interventions*
- *use of spare parts that are not original or not specific for the unit*
- *total or partial inobservance of instructions*
- *Unusual events*

## 2.1 LAMP MOUNTING AND REPLACING

*The unit mounts high pressure lamp with external traditional striker.*

***The lamp must be changed if damaged or deformed by heat.***

***WARNING: switch off the projector before operating.***

***Read carefully the lamp builder's instructions.***

*Screw the two screws off (part.A) and remove the round cover that's supporting the lampholder. Insert the lamp (MSD250/2) in the socket. Insert delicately the lamp inthe projector support, driving it with the round cover.*

*Pay attention: the lampholder's wires must correctly reenter in the projector. Block the cover screwing the screws up.*

***Wait at least 10 minutes after the projector has been switched off before operating again, in order to let it cool down and avoid the lamp explosion. Wait 20 minutes in case you are operating with bare hands in order to avoid burns.***

## 2.2 LAMP ADJUSTMENT

*Lamp adjstment is necessary to obtain a uniform and powerful light beam. Switch on the projector and set the shutter to open, set the color as white. Adjust the three screws (part. B) until you reach the ideal condition between power and homogeneity.*

*WARNING! The lamp is pre-regulated by the factory. Only fine-adjustment is required. Don't move the screws B up to upper or lower extremities.*

## 2.3 PROJECTOR INSTALLATION

*To fix the* ***MP250 Fresnel*** *is necessary, when the installation has to be on a raised-from-the ground support, to block the fixing bracket of the unit by means of a screw provided with nut and locknut measuring not less than* ***M10X50****, to insert in the central pre-arranged hole on the fixing bracket.*

*In order to guarantee a necessary security and in respect of the actual safety rules concerning the projectors' installation, it is compulsory to install a safety-chain (or steel cable), equipped with spring clips, to connect the* ***MP250 Fresnel****'s body to the fixing structure.*

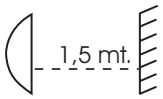
***ATTENTION:*** *the safety-chain must be properly installed and fixed to the supporting structure, in a way that an incidental giving in of the main bracket would leed to the shortest possible fall of the projector.* ***After such an intervention the safety-chain must be replaced.***

*ATTENTION: COEF is not responsible for installations not correctly made or made without respecting the above indications: those installations are considered dangerous.*

## 2.4 ADVICES FOR A CORRECT INSTALLATION

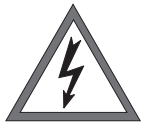
*The following conditions have to be respected for a correct operation:*

*1) Do not install the projector outside where the influence of atmospheric factors could damage the unit working (rain, wind, intense heat etc.).*
*2) Do not clean the projector using water jets or immersion in different liquids. Scrupulously follow the indications given in the chapter MAINTENANCE.*
*3) Make the electric connections and the installation / replacement of the lamp after haved disconnected the power supply and after haved positioned the power switch to OFF.*
*4) Do not touch in any case the internal and external parts of the projector without previous authorization of the constructor and make modifications only by the intervention of qualified staff.*
*5) Make sure that the projector is correctly fixed on the support as indicated in par.2.3.*

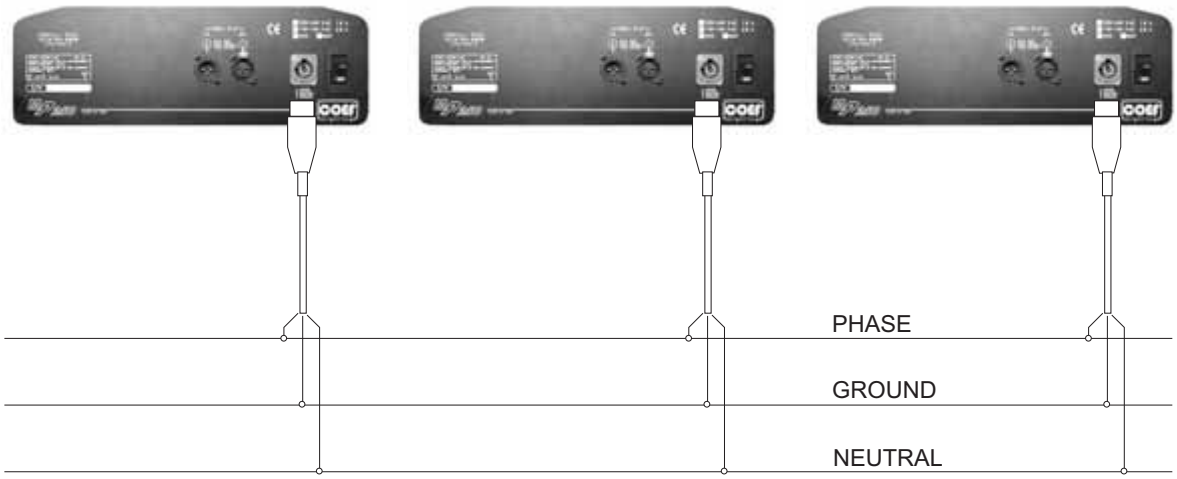



*6)* ***Minimum distance from illuminated objects:*** *The projector must be positioned in such a way that objects struck by the light beam are located at least 1,5 metres from the projector objective.*
*7)* ***Minimum distance from inflammable materials:*** *0.3 meters*
*8)* ***MAX ambient temperature:*** *40° C.*

## 3.0 POWER SUPPLY CONNECTIONS

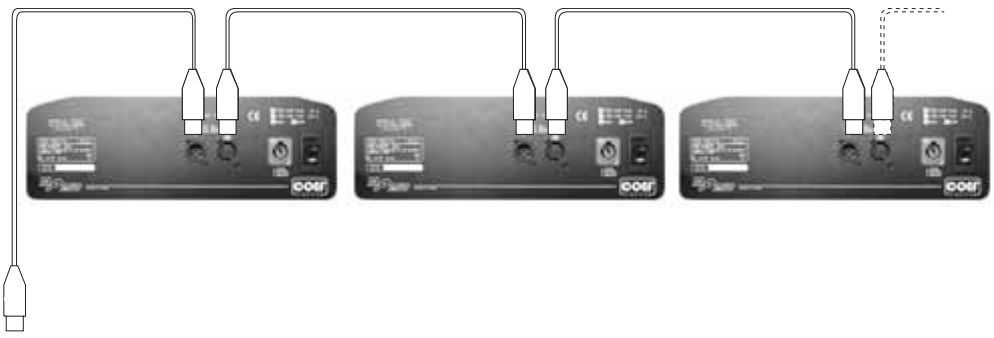


*Supply the projector by connecting it as indicated in picture*
***Power supply:*** *220-240 V. 50-60 Hz. with Voltage and frequency as indicated on the rear of the projector.*
***Power absorbed:*** *430 VA 1,8 A. with nominal voltage.*
***Power factor****: 0.97* ***Phase advancer :*** *50 uF.*

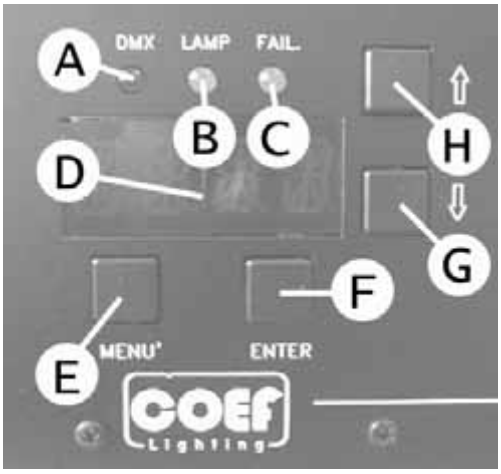



## 3.1 DMX 512 CONNECTIONS

*Connect the projector to the control unit by means of a RG58 or RG59 coaxial cable supplied with 3 Pin XRL Cannon plugs and connectors. Respect, according to the indications on the panel, the input and the output of the DMX 512 signal.*



## 4.0 SPECIAL FUNCTIONS AND PROJECTOR ASSIGNMENT




*On the front panel of **MP250 Fresnel** you'll find a section for the additional functions and for setting the projector.*

*Following the picture, you can see all the offered possibilities in detail.*

*All operations are to be carried out with the **E**, **F**, **G**, **H** buttons, respectively indicated as **MENU**, **ENTER**, **DOWN** and **UP**.*

*The display **D** will inform you about the selected functions.*

*The 3 **A**, **B**, and **C** leds will allow you to know:*
***A** = reception of the DMX line.*
***B** = lamp ON.*
***C** = errors indicated on the ERR table.*

*On switching the projector on, the display will indicate the type of projector and the version of control software which have been installed. To this purpose, please remember that this type of projector belongs to a new generation of projectors, designed with the possibility of updating the software version through the normal DMX connection by means of a programmer deliberately created: **UNI-PROG 8**.*

*After the indication **MSTR HOME**, the projector carries out the RESET and gets ready to be controlled from the connected console.*

*The display will indicate 1 as default value. This means that the first channel occupied by the projector will respond to the values sent to channel 1 by the DMX line. This also means that according to the total number of channels assigned to the projector by means of the CH89 function, MISC menu (see Table 4.1 Menu/Fuctions), we shall be able to check the **MP250 Fresnel** with the 1 to X channels (8 or 9 according to how the setting is) of the DMX line. This enables us to make **MP250 Fresnel** (which we are installing) completely independent from control or integral with any other installed projector.*

***General Rules:***

*Refer to the Table of Section 4.1 in the following page.*
*By each pressure, Button **MENU** (E) permits to go backwards by one level.*
*G and H (**DOWN** and **UP**) buttons select functions and sub-functions.*
*Button F (**ENTER**) enters the function and confirms a control.*

*By pressing Button **MENU** (E) and buttons **UP** and **DOWN** (H and G) you can select the menu you have to modify.*

*Once the wished menu is reached, press Button F (**ENTER**) to confirm your selection and enter the function.*
*Press G or H to enter the sub-functions if available.*
*Always confirm your selection with **ENTER**.*
*Press **MENU** to go out of the function and press again to go back to the starting level.*

***Example**: We installed our projector on the ceiling and for this reason we want the visualization of the display to be correct.*

- *Press **MENU***
- *Press **H** (UP) 11 times up to "**MISC**"*
- *Press **ENTER** the Display will show "**RSET**"*
- *Press **H** (UP) twice up to "**DSPL**"*
- *Press **ENTER** the Display will show "**ONOF**"*
- *Press **H** (UP) once up to "**STRV**"*
- *Press **ENTER** the Display will show "**STND**"; this is the actual configuration state.*
- *Press **H** (UP) once up to **R.E.V..;** the blinking point indicate the available configuration.*
- *Press **ENTER** ..... The Display visualization as been rotated to 180°.*
- *Press **MENU** 4 times to return to starting MENU.*

*The indication of the display will automatically come back after 120 sec. and inform on the set starting channel DMX. **If we are now in a sub-function, this automatic device will not assume control.***

## 4.1 MENU, FUNCTION & SUB-FUNCTION

| MENU | FUNCTION | SUB-FUNCTION | DESCRIPTION |
|---|---|---|---|
| **DMX** | (*) 1 / 255 | | DMX start channel |
| **TIME** | LAMP | SHOW - KH, H | Lamp working hours (KH=thousands H=hours) |
| | | RESET - GO? | Lamp working hours reset (confirm by ENTER) |
| | MACH | SHOW - KH, H | Projector working hours (KH=thousands H=hours) |
| **ERR** | E OK | | NO ERROR |
| | E110 | | EEPROM failure |
| | E210 | | Malfunction of the SHUTTER motor |
| | E220 | | Malfunction of the COLOR 1 motor/sensor |
| | E230 | | Malfunction of the COLOR 2 motor/sensor |
| | E240 | | Malfunction of the FROST effect motor/sensor |
| | E250 | | Malfunction of the PAN motor/sensor |
| | E260 | | Malfunction of the TILT motor/sensor |
| | E510 | | Malfunction of the PAN Encoder |
| | E260 | | Malfunction of the TILT Encoder |
| | W310 | | Checksum Setup not valid |
| | W410 | | Lamp working hours for more than 1900 hours. |
| **SHUT** | HOME | | HOME SHUTTER |
| | TEST | | TEST SHUTTER |
| **COL1** | HOME | | HOME COLOR 1 |
| | TEST | | TEST COLOR 1 |
| | CSHUT | (*) OFF / ON | Color change in black-out position |
| | MODE | (*) MOD1 / MOD2 | Color switching or linear wheel motion. |
| **COL2** | HOME | | HOME COLOR 2 |
| | TEST | | TEST COLOR 2 |
| | CSHUT | (*) OFF / ON | Color change in black-out position |
| | MODE | (*) MOD1 / MOD2 | Color switching or linear wheel motion. |
| **FROST** | HOME | | HOME GOBOS rotation |
| | TEST | | TEST GOBOS rotation |
| **PAN** | HOME | | HOME PAN movement |
| | TEST | | TEST PAN movement |
| | STRV | (*) STND / REV | Switch movement direction ( DX / SX) |
| | ENCO | (*) ON / OFF | ON/OFF the automatic repositioning of the PAN |
| **TILT** | HOME | | HOME TILT movement |
| | TEST | | TEST TILT movement |
| | STRV | (*) STND / REV | Switch movement direction (UP / DOWN) |
| | ENCO | (*) ON / OFF | ON/OFF the automatic repositioning of the TILT |
| **SCH** | da CH1 a CH9 | 0 / 255 | DMX value for the indicated channel |
| **LAMP** | ONOF | ON | LAMP ON |
| | | OFF | LAMP OFF |
| | | AUTO | LAMP OFF after 1 hour of no change on DMX |
| | CDMX | (*) NO / YES | LAMP switching on by DMX control |
| **MISC** | RSET | | MASTER HOME (Starting RESET) |
| | RDMX | (*) YES / NO | MASTER HOME via DMX control |
| | DSPL | (*) ON / OFF | Display on / Display off |
| | | (*) STND / REV | 180° rotation of the visualization display |
| | SWPT | (*) STND / SWAP | Channel control switch PAN / TILT |
| | CH 8/9 | (*) CH 8 / CH 9 | Pojector control (8 or 9 channels) |
| | VER | | Show the installed software version |

## 5.0 CHANNELS AND DIGITAL VALUES

| CH | 8 CHANNELS | 9 CHANNELS |
|---|---|---|
| 1 | **SHUTTER / STROBE / DIMMER**<br>0-5 SHUTTER closed<br>6-100 DIMMER Adjustment<br>101-110 DIMMER 0 > 100% Automatic 6 sec.<br>111-120 DIMMER 100% > 0 Automatic 6 sec.<br>121-126 DIMMER 0 > 100% slow Faster shut down<br>127-132 DIMMER 0 > 100% middle Faster shut down<br>133-138 DIMMER 0 > 100% fast Faster shut down<br>139-144 DIMMER 100% > 0 slow Faster open<br>145-150 DIMMER 100% > 0 middle Faster open<br>151-156 DIMMER 100% > 0 fast Faster open<br>157-162 Dimmer 0 > 100% > 0 slow<br>163-168 Dimmer 0 > 100% > 0 middle<br>169-174 Dimmer 0 > 100% > 0 fast<br>175-180 Strobe lamp from 1 to 6 random [reg. 0.0-0.5 sec.]<br>181-186 Strobe lamp from 1 to 6 random [reg. 0.6-1.5 sec.]<br>187-192 Strobe lamp from 1 to 6 random [reg. 1.6-2.5 sec.]<br>193-250 STROBE Speed adjustment<br>251-255 SHUTTER open | **SHUTTER / STROBE / DIMMER**<br>0-5 SHUTTER closed<br>6-100 DIMMER from channel 9 value<br>101-110 DIMMER 0 > 100% Automatic 6 sec.<br>111-120 DIMMER 100% > 0 Automatic 6 sec.<br>121-126 DIMMER 0 > 100% slow Faster shut down<br>127-132 DIMMER 0 > 100% middle Faster shut down<br>133-138 DIMMER 0 > 100% fast Faster shut down<br>139-144 DIMMER 100% > 0 slow Faster open<br>145-150 DIMMER 100% > 0 middle Faster open<br>151-156 DIMMER 100% > 0 fast Faster open<br>157-162 Dimmer 0 > 100% > 0 slow<br>163-168 Dimmer 0 > 100% > 0 middle<br>169-174 Dimmer 0 > 100% > 0 fast<br>175-180 Strobe lamp from 1 to 6 random [reg. 0.0-0.5 sec.]<br>181-186 Strobe lamp from 1 to 6 random [reg. 0.6-1.5 sec.]<br>187-192 Strobe lamp from 1 to 6 random [reg. 1.6-2.5 sec.]<br>193-250 STROBE Speed adjustment<br>251-255 SHUTTER open |
| 2 | **COLOR 1 MODE 1**<br>0 - 5 Neutral<br>6 - 15 Yellow<br>16 - 25 Blue<br>26 - 35 Magenta<br>36 - 45 Green light<br>46 - 55 Orange<br>56 - 65 Cyano<br>66 - 75 Pink<br>76 - 85 Red<br>86 - 95 Blu light<br>96 - 105 Green<br>106 - 115 Wood<br>116 - 125 White-Yellow<br>126 - 135 Yellow-Blue<br>136 - 145 Blue-Magenta<br>146 - 155 Green light-Orange<br>156 - 165 Orange-Cyano<br>166 - 175 Cyano-Pink<br>176 - 185 Red-Blue light<br>186 - 195 Blue light-Green<br>196 - 200 Random full-color (fast)<br>201 - 205 Random full-color (slow)<br>206 - 230 CW Rotation adjustment<br>231 - 255 CCW Rotation adjustment<br><br>**COLOR 1 MODE 2**<br>0 - 5 Neutral<br>6 - 10 Yellow<br>11 - 15 Blue<br>16 - 20 Magenta<br>21 - 25 Green light<br>26 - 30 Orange<br>31 - 35 Cyano<br>36 - 40 Pink<br>41 - 45 Red<br>46 - 50 Blu light<br>51 - 55 Green<br>56 - 60 Wood<br>61 - 180 Positioning<br>181 - 185 Random fast<br>186 - 190 Random middle<br>191 - 195 Random slow<br>196 - 200 Random very slow<br>201 - 215 Random very fast<br>216 - 235 CW Rotation adjustment<br>236 - 255 CCW Rotation adjustment | **COLOR 1 MODE 1**<br>0 - 5 Neutral<br>6 - 15 Yellow<br>16 - 25 Blue<br>26 - 35 Magenta<br>36 - 45 Green light<br>46 - 55 Orange<br>56 - 65 Cyano<br>66 - 75 Pink<br>76 - 85 Red<br>86 - 95 Blu light<br>96 - 105 Green<br>106 - 115 Wood<br>116 - 125 White-Yellow<br>126 - 135 Yellow-Blue<br>136 - 145 Blue-Magenta<br>146 - 155 Green light-Orange<br>156 - 165 Orange-Cyano<br>166 - 175 Cyano-Pink<br>176 - 185 Red-Blue light<br>186 - 195 Blue light-Green<br>196 - 200 Random full-color (fast)<br>201 - 205 Random full-color (slow)<br>206 - 230 CW Rotation adjustment<br>231 - 255 CCW Rotation adjustment<br><br>**COLOR 1 MODE 2**<br>0 - 5 Neutral<br>6 - 10 Yellow<br>11 - 15 Blue<br>16 - 20 Magenta<br>21 - 25 Green light<br>26 - 30 Orange<br>31 - 35 Cyano<br>36 - 40 Pink<br>41 - 45 Red<br>46 - 50 Blu light<br>51 - 55 Green<br>56 - 60 Wood<br>61 - 180 Positioning<br>181 - 185 Random fast<br>186 - 190 Random middle<br>191 - 195 Random slow<br>196 - 200 Random very slow<br>201 - 215 Random very fast<br>216 - 235 CW Rotation adjustment<br>236 - 255 CCW Rotation adjustment |

| CH | 8 CHANNELS | 9 CHANNELS |
|---|---|---|
| 3 | **COLOR 2 MODE 1**<br>0 - 5 Neutral<br>6 - 15 Violet<br>16 - 25 Emerald<br>26 - 35 Pink<br>36 - 45 Purple<br>46 - 55 Red<br>56 - 65 Cyano<br>66 - 75 Blue<br>76 - 85 Yellow<br>86 - 95 Cream<br>96 - 105 Conversion 3200° k<br>106 - 115 Conversion 5600° k<br>116 - 125 Bicolor Neutral-Violet<br>126 - 135 Bicolor Violet-Emerald<br>136 - 145 Bicolor Emerald-Pink<br>146 - 155 Bicolor Purple-Red<br>156 - 165 Bicolor Red-Cyano<br>166 - 175 Bicolor Cyano-Blue<br>176 - 185 Bicolor Yellow - Cream<br>186 - 195 Bicolor Cream - Conversion 3200°k<br>196 - 200 Random unit color (lento)<br>201 - 205 Random unit color (veloce)<br>206 - 230 CW Rotation adjustment<br>231 - 255 CCWRotation adjustment<br><br>**COLOR 2 MODE 2**<br>0 - 5 Neutral<br>6 - 10 Violet<br>11 - 15 Emerald<br>16 - 20 Pink<br>21 - 25 Purple<br>26 - 30 Red<br>31 - 35 Cyano<br>36 - 40 Blue<br>41 - 45 Yellow<br>46 - 50 Cream<br>51 - 55 Conversion filter 3200° k<br>56 - 60 Conversion filter 5600° k<br>61 - 180 Posizionamento<br>181 - 185 Random full color (veloce)<br>186 - 190 Random full color (medio)<br>191 - 195 Random full color (lento)<br>196 - 200 Random full color (lentissimo)<br>201 - 215 Random full color (velocissimo)<br>216 - 235 CW Rotation adjustment<br>236 - 255 CCWRotation adjustment | |
| 4 | FROST EFFECT<br>0 - 10 NO Frost filter<br>11 - 241 Reg. Frost effect<br>242 - 255 Frost filter to 100% | **FROST EFFECT**<br>0 - 10 NO Frost filter<br>11 - 241 Reg. Frost effect<br>242 - 255 Frost filter to 100% |
| 5 | PAN MOVEMENT | PAN MOVEMENT |
| 6 | PAN MOVEMENT FINE ADJUSTMENT | PAN MOVEMENT FINE ADJUSTMENT |
| 7 | TILT MOVEMENT | TILT MOVEMENT |
| 8 | TILT MOVEMENT FINE ADJUSTMENT | TILT MOVEMENT FINE ADJUSTMENT |
| 9 | | DIMMER<br>0 - 10 DIMMER CLOSED<br>11 - 250 DIMMER Adjustment<br>251 - 255 DIMMER OPEN<br><br>WARNING : position CHANNEL 1 at a value between 6 and 100, in order to control DIMMER with this channel. |

## SPECIAL ACTION

*When the lamp control via DMX (CDMX) and the RDMX function have been activated in the configuration menu, it's possible, by a combination of the channels values, to control the lamp switch ON/OFF or to allow the projector MASTER RESET.*

***Lamp ON via DMX:*** **(CDMX=YES)**
*CHANNEL 2 = value 0*
*CHANNEL 3 and CHANNEL 4 = value 0 > 255 > 0*

***Lamp OFF via DMX:*** **(CDMX=YES)**
*CHANNEL 2 = value 255*
*CHANNEL 3 and CHANNEL 4 = value 0 > 255 > 0*

***MASTER RESET:*** **(RDMX=YES)**
*CHANNEL 1 = value 0*
*CHANNEL 2 and CHANNEL 3 = value 0 > 255 > 0*

## 6.0 ORDINARY MAINTENANCE

*The ordinary maintenance is fundamental for the perfect efficiency of* ***MP250 Fresnel****, in order to prevent any functional defect as a reduced light beam or irregularities in the movement of the projector or of other rotating parts.*

*The parts which need more maintenance are shown in the figures. In order to free them from dust or grease, clean them with a soft cloth and normal products for windows cleaning.*

*To let you operate more easily, we advice you to remove the two top covers of MP250 and the two basis covers. In order to put again the cover to its place, operate as shown below:*

*A) Positionate the top cover on the MP250 FRESNEL projector.*
*B) Screw down the frontal screws (objective); not yet those on the back (lamp).*
*C) Insert the 2 rubber front parts, guiding them to the end of their position.*
*D) Remove the lamp cover and insert the two remaining rubber packings, guiding them to the end of their position.*
E) Block carefully the four screws.

## 6.1 EXTRAORDINARY MAINTENANCE

*To make an extraordinary maintenance, it is necessary the presence of a generic or qualified mechanical operator, according to the type of the needed intervention.To let you operate more easily, we advice you to remove the two top covers of* ***MP250 Fresnel*** *and the two basis covers. In this way it will be much more easy to observe the components to maintain and/or replace. In the following figures it's possible to observe the different parts that have to be cleaned and, at the same time, the whole mechanical structure mounted with all its components is shown.*

*You must particularly take care of the sensors which are really fundamental in the unit working.*

*The sensors are absolutely necessary when a general reset of the projector is needed. If this function is not correctly executed, it will totally compromise the regular working of the projector, at least for the group referred to the sensor itself.*

*Es : when there's an irregular reset of the color wheel, all the setted colors will not correspond to the colours listed in the chapter about DMX digital values.*

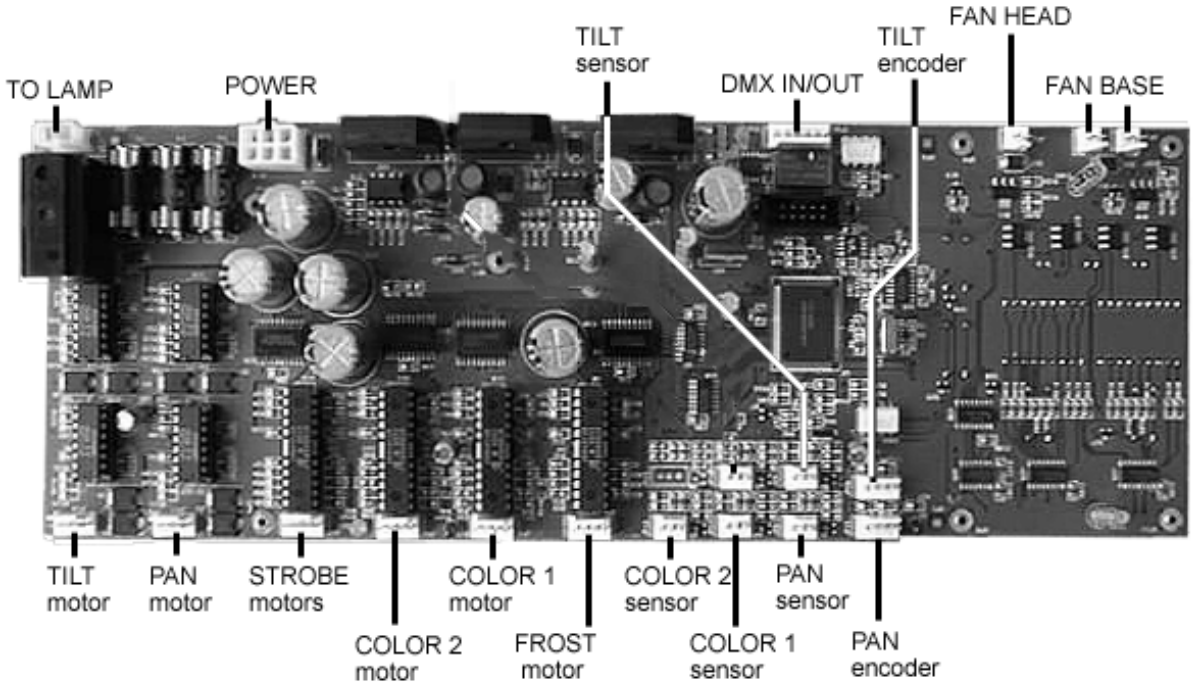
*The section shutter/strobo doesn't use sensors during the reset positioning but it's conditioned by a mechanical beat of the shutter shovels.*

## 6.2 ELECTRONIC MAINTENANCE

*This section is dedicated in detail to the electronic connections between the card and the mechanical components, assembled in the projector. These informations will be absolutely necessary when the mechanical unit has to be removed from the projector for maintenance and/or repair.*

*The connections are made using handy connectors and are detailed where you can find indications about the connection between a specific connector and a specific component of the mechanical unit. This includes the motors and the sensors of the various effects wheels ( color 1, color 2, shutter etc.).*

***WARNING! An improper use of this documentation made by not specifically qualified staff can damage irremediably the electronic and/or mechanical components of the projector.***



## 7.0 TROUBLESHOOTING

| PROBLEM | CAUSE | ACTION |
|---|---|---|
| *The projector doesn't switch on* | *- The power supply is not present* | *Check if the luminous indicator is lighted or not.* |
| | *- The lamp is not working* | *Replace the lamp.* |
| *The projector switches on but doesn't answer to commands* | *- Wrong DMX configuration* | *Make sure that the projector is correctly configurated.* |
| | *- The (A) Led is not blinking* | *Check the Fuse F3(1A) on the main board* |
| | *- Defective cables* | *Replace or repair the DMX cable.* |
| | *- Defective control unit* | *Check the control unit by means of other working projectors.*<br>*Technical aid is required.* |
| *Defecting projection* | *- The lens is broken* | *Ceck that the lens are not broken.* |
| | *- Dust or grease stored on lens* | *Remove dust or grease stored on lens* |
| *Projection with halo* | *- Not aligned Lamp* | *Lamp adjustment (see 2.2 chapter)* |
| | *- Dust or grease stored on the all parts of projector.* | *Carefully clean the projector components (see "Maintenance" chapter)* |
| *The color or other effects doesn't coincide to the selected value.* | *- Position sensor dirty with dust or grease* | *Carefully clean the projector components (see "Maintenance" chapter)* |
| | *- Defective Motor*<br>*- Electronic board* | *Technical aid is required.* |
| *The PAN movement doesn't coincide to the selected value* | *- Position sensor dirty with dust or grease* | *Carefully clean the projector components (see "Maintenance" chapter)*<br>*Technical aid is required.* |
| | *- Defective Motor*<br>*- Electronic board* | |
| *The projector does not carry out the automatic repositioning of the PAN or TILT movements.* | *- ENCO OFF in the PAN/TILT configuration menu* | *Set ON ENCO Function of PAN/TILT configuration MENU (cap. 4.1)*<br>*Technical aid is required.* |

# Declaration of CE Conformity

We, Manufacturer/Importer

**COEF srl.**
Via Albinatico, 80-82
51019 Ponte Buggianese (Pistoia)
**ITALY**

Declare that the product

## MP250 FRESNEL

Is in conformity with
In accordance with **89/336 EEC-EMC** Directive and
With the actual required safety standards in accordance with LVD 73/23 EEC

| | | |
|---|---|---|
| | | Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) high frequency equipment |
| | | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment |
| | | Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus |
| | | Limits and methods of measurement of radio disturbance characteristics of fluorescent lampsand luminaries |
| ■ | **EN 55022** | Limits and methods of measurement of radio disturbance characteristics of information technology equipment |
| | | Immunity from radio interference of broadcast receivers and associated equipment |
| | | Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals |
| ■ | **EN 60065** | Safety requirements for mains operated electronic and related apparatus for household and similar general use |
| | | Safety of household and similar electrical appliances |

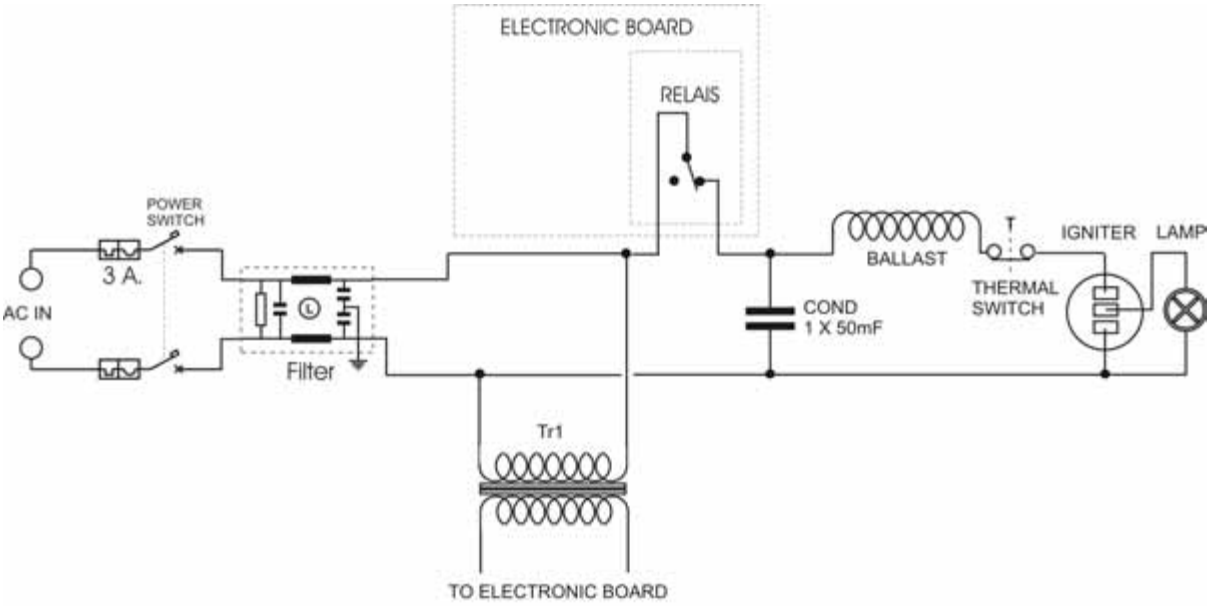
| | | |
|---|---|---|
| | | Disturbances in supply systems caused by household appliances and similar electrical eqipment “Harmonics” |
| ■ | **EN 61000-3-3** | Disturbances in supply systems caused by household appliances and similar electrical eqipment “Voltage fluctuations” |
| | | Generic emission standard Part 1: Residual, commercial and light industry |
| | | Generic immunity standard Part 1: Residual, commercial and light industry |
| | | Generic emission standard Part 2: Industrial environment |
| | | Generic immunity standard Part 2: Industrial environment |
| | | Immunity requirements for household appliances tols and similar apparatus |
| ■ | **EN 61547** | Equipment for general lighting purposes (immunity) |
| ■ | **EN 60598-1** | Light fixtures General instructions and tests |
| ■ | **EN 60598-2-17** | Light fixtures. General instructions and tests. Equipment fixtures for stages, TV and cinema studios |

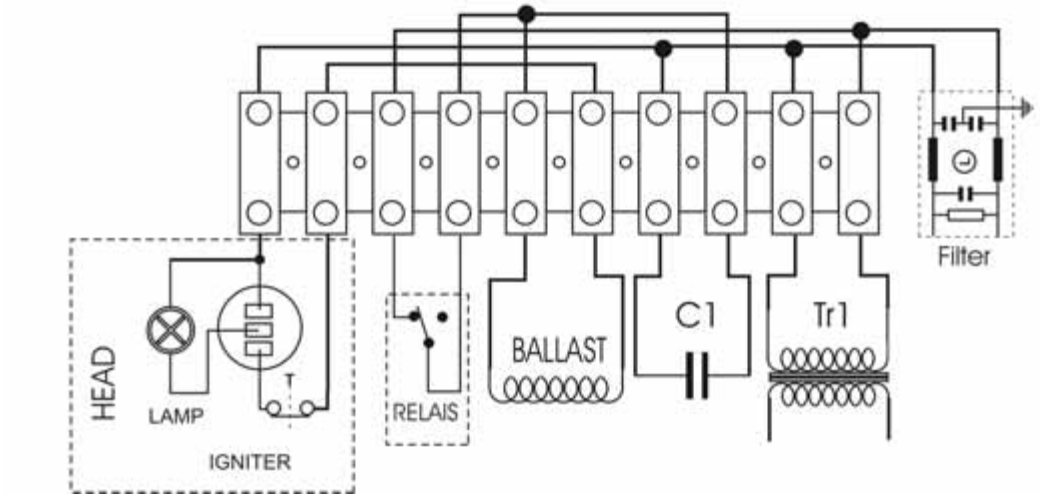
Date: Ponte Buggianese, 05 October 2000

Name: Alfonso Ceccarelli
Position: Managing Director

Signature:

## 9.0 ELECTRIC DIAGRAM

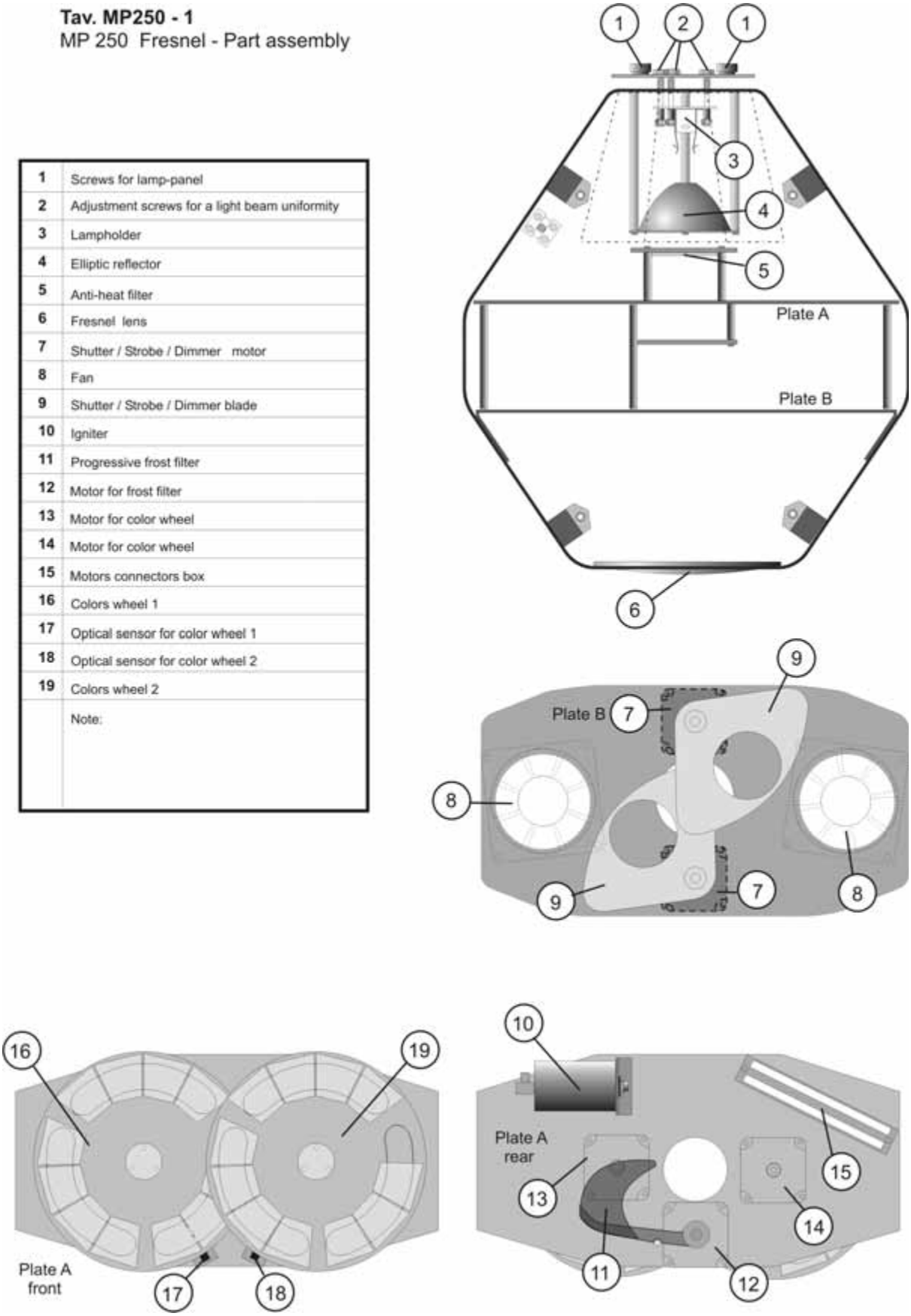


## 10.0 DIMENSIONS

**Tav. MP250 - 1**
MP 250 Fresnel - Part assembly

| | |
|---|---|
| 1 | Screws for lamp-panel |
| 2 | Adjustment screws for a light beam uniformity |
| 3 | Lampholder |
| 4 | Elliptic reflector |
| 5 | Anti-heat filter |
| 6 | Fresnel lens |
| 7 | Shutter / Strobe / Dimmer motor |
| 8 | Fan |
| 9 | Shutter / Strobe / Dimmer blade |
| 10 | Igniter |
| 11 | Progressive frost filter |
| 12 | Motor for frost filter |
| 13 | Motor for color wheel |
| 14 | Motor for color wheel |
| 15 | Motors connectors box |
| 16 | Colors wheel 1 |
| 17 | Optical sensor for color wheel 1 |
| 18 | Optical sensor for color wheel 2 |
| 19 | Colors wheel 2 |
| | Note: |



**Tav. MP250F - 2**
MP 250 Fresnel - Base & Arm Part assembly

| | |
|---|---|
| 1 | Power Switch |
| 2 | Power Outlet |
| 3 | DMX IN-OUT Board |
| 4 | Power factor correcting capacitors |
| 5 | Ballast |
| 6 | Fan |
| 7 | Handspike |
| 8 | AC-filterr |
| 9 | Pan rotary stopper |
| 10 | Pan reset - Optical sensor |
| 11 | Pan - ball bearing |
| 12 | Pan Driving belt |
| 13 | Pan movement motor |
| 14 | Transformer for electronic equipment |
| 15 | Electronic board |
| 16 | Head arm |
| 17 | Tilt movement gear |
| 18 | Tilt movement motor |
| 19 | Tilt Driving belt |
| 20 | Tilt movement pinion |
| 21 | Encoder PAN sensor |
| 22 | Encoder PAN disc |
| 23 | Encoder TILT sensor |
| 24 | Encoder TILT disc |
| | Note: |